DATA SOURCES FOR SCIENCE & ENGINEERING STATE PROFILES

The remainder of this report is a set of 52 one page science and engineering (S&E) Profiles summarizing a variety of other state-specific data on S&E personnel and institutions. U.S and state R&D expenditures data were assembled from a number of ongoing NSF surveys, as well as for broader economic variables from non-SRS sources. The SRS-surveyed indicators include-

- doctoral scientists and engineers;
- S&E doctorates awarded, including by major S&E fields ("Life Sciences" for S&E doctorate data are the sum of biological and agricultural sciences. Medical or health-related data are not collected);
- S&E graduate students and post-doctorates;
- Federal R&D obligations, by agency and performer;
- total and industrial R&D expenditures; and
- academic R&D expenditures, including by major S&E fields.

The indicators from non-SRS sources include population, civilian labor force, per capita personal income, Federal expenditures, higher education expenditures, patents, small business innovation research awards, and gross state product originating in manufacturing, agriculture, trade, government, and services.

In these profiles, state rankings and totals are for the 50 states and the District of Columbia. For many surveys, some of the data either could not be allocated to specific geographic regions, or were for territories other than D.C. and the 50 states (for example, Puerto Rico). Consequently, U.S. totals reported here may differ with those reported in the underlying surveys. Further, an attempt was made to compile similar statistics for Puerto Rico. For some variables, the data sources differ from those used to obtain state data; for other variables, reliable, comparable data for Puerto Rico simply do not exist. Consequently, U.S. totals are reported exclusive of data on Puerto Rico. Rankings on the Puerto Rico S&E profile are excluded.

Specific data sources for S&E state profiles:

Doctoral scientists and engineers. National Science Foundation/SRS. *Characteristics of Doctoral Scientists and Engineers in the United States 1993*, NSF 96-302, (Arlington, VA, 1995).

S&E doctorates awarded. National Science Foundation/SRS. *Selected Data on Science and Engineering Doctorate Awards 1995*, NSF 96-303, (Arlington, VA, 1996).

S&E postdoctorates, S&E graduate students. National Science Foundation/SRS. *Selected Data on Graduate Students and Postdoctorates in Science and Engineering Fall 1994*, (forthcoming), (Arlington, VA, 1996), and unpublished tables.

Population. U.S. Department of Commerce, Bureau of the Census. Press release CB 96-10, (Washington, D.C., January 1996).

Civilian labor force. U.S. Department of Labor, Bureau of Labor Statistics. *State and Regional Unemployment, 1995 Annual Averages* (news release), USDL 96-147, April 17, 1996.

Personal income per capita. U.S. Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis. *Survey of Current Business*, Volume 76, (Washington, D.C., May 1996).

Total Federal expenditures. U.S. Department of Commerce, Bureau of the Census. *Federal Expenditures by State for Fiscal Year 1995*, (Washington, D.C., June 1996).

Federal R&D obligations. National Science Foundation/SRS. *Federal Funds for Research and Development FY 1994, 1995, and 1996*, NSF 97-302, (Arlington, VA, 1996).

Total R&D performance. National Science Board. *Science & Engineering Indicators - 1996*, NSB-96-21, (Washington, D.C.).

Industry R&D. National Science Foundation/ SRS. *Research and Development in Industry 1993*, NSF 96-304, (Arlington, VA, 1995).

Academic R&D. National Science Foundation/ SRS. *Academic Science and Engineering R&D Expenditures FY 1994*, NSF 96-308, (Arlington, VA, 1996).

Higher education current-fund expenditures. U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics. *Digest of Education Statistics 1995*, (Washington. D.C., 1995).

Number of SBIR awards. U.S. Small Business Administration, Office of Technology. *Small Business Innovation Development Act*, (Washington, D.C.). Annual Reports covering data for fiscal years 1990 through 1994.

Patents issued to state residents. U.S. Department of Commerce, U.S. Patent and Trademark Office. *Patent Counts by Country/State and Year: Utility Patents 1963-95*, (Washington, D.C., March 1996).

Gross state product. U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Analysis Division, (Washington, D.C., May 1995).

Data Users

We hope that you find the attached package on science and engineering State Profiles useful. These state-specific data have been obtained from numerous surveys of the National Science Foundation/Division of Science Resources Studies (SRS) and other Federal Government agencies. The data have been published in the source documents listed and are compiled here for your convenience. The dissemination of State Profiles are intended to address the widespread and persistent demand for state science and engineering data. SRS data, including State Profiles, are available through the World Wide Web (http://www.nsf.gov/sbe/srs/stats.htm).

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